

EXHIBIT 1

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF WEST VIRGINIA
AT CHARLESTON**

**WEST VIRGINIA RIVERS
COALITION, INC.,**

Plaintiff,

v.

Civil Action No. 2:24-cv-00701

THE CHEMOURS COMPANY FC, LLC,

Defendant.

**[PLAINTIFF’S PROPOSED] FINDINGS OF FACT AND CONCLUSIONS OF LAW
REGARDING PLAINTIFF’S MOTION FOR A PRELIMINARY INJUNCTION**

Findings of Fact

1. Plaintiff and Defendant have stipulated that the Court may, in ruling on Plaintiff’s motion for preliminary injunction, properly base factual findings and legal conclusions on any of the Exhibits submitted with preliminary injunction briefing in this matter—regardless whether the Exhibit was specifically introduced as evidence during the preliminary injunction hearing. Joint Stipulation, ECF No. 55 at 2 (hereafter “Joint Stip.”).

2. Defendant The Chemours Company FC, LLC (“Chemours” or “Defendant”) holds a Clean Water Act or CWA permit known as a “National Pollutant Discharge Elimination System” (or “NPDES” permit)—WV/NPDES Permit Number WV0001279 (hereafter “the Permit”)—which regulates discharges into the Ohio River from its Washington Works Plant in Washington, West Virginia. The Permit was reissued in 2018, has been administratively extended since 2023, and is still in effect. Joint Stip. ¶ 1.

3. HFPO-DA, or hexafluoropropylene oxide-dimer acid, is one of a group of per- and polyfluoroalkyl substances (“PFAS”). ECF No. 79 (hereafter “May 23 Tr.”) at 6:2–5 (Hoagland).

PFAS are commonly referred to as “forever chemicals” because they “do not break down or degrade over time and are therefore highly persistent.” *Ctr. for Env’t Health v. Regan*, 103 F.4th 1027, 1031 (4th Cir. 2024) (internal quotation marks omitted); *see also* 89 Fed. Reg. 32532, 32557 (Apr. 26, 2024) (“HFPO-DA is environmentally persistent.”).

4. Chemours uses HFPO-DA and its ammonium salt at the Washington Works Plant as a patented polymerization aid in the manufacturing of fluoropolymers. Joint Stip. ¶ 2. The Washington Works Plant produces, among other things, three products: perfluoroalkoxy (PFA), fluorinated ethylene propylene (FEP), and polytetrafluoroethylene (PTFE). *See* ECF No. 78 (hereafter “May 22 Tr.”) at 27:3–15 (Walck).

5. Effective January 1, 2022, the Permit imposed final limits on discharges of HFPO-DA from Outfalls 002 and 005 at the Washington Works Plant. The HFPO-DA limits for Outfall 002 are a monthly average of 1.4 µg/l and a daily maximum of 2.3 µg/l. The limits for Outfall 005 are a monthly average of 1.1 µg/l and a daily maximum of 2.3 µg/l. Joint Stip. ¶ 3.

6. The West Virginia Department of Environmental Protection (“WVDEP”) calculated those limits based on the dilution factor required by the regulatory body with authority over the Ohio River, and explained why Chemours’s requested dilution factor was prohibited. ECF No. 65-1 at 2–3.

7. The Permit also provides that “[i]t shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.” ECF No. 65-1 at 96 (Appx. A, Part II.2).

8. The Permit does not excuse violations of Permit limits during, or caused by, wet weather. ECF No. 65-1; ECF No. 77 (hereafter “May 21 Tr.”) at 105:10–13 (Hollingsworth).

9. Most of the HFPO-DA that Chemours discharges from the Washington Works Plant into the Ohio River is discharged from Outlets 002 and 005, amounting to 140 out of a total of 150 pounds per year. *See* ECF No. 65-8 at 3 (Table 2); May 23 Tr. 11:16–21 (Hoagland). About half of that total—75 pounds—is attributable to process wastewater from the manufacture of fluoropolymers discharged through those two Outlets. ECF No. 65-8 at 4 (Table 3).

10. Chemours’s limits for HFPO-DA at Outlets 002 and 005 are water quality-based effluent limits (“WQBELs”). Joint Stip. ¶ 5.

11. WVDEP set limits for HFPO-DA at Outlets 002 and 005 in the Permit based on a health goal of 140 nanograms per liter (ng/L) or parts per trillion (ppt) “to be protective of the State’s narrative water quality criteria for human health and the designated uses of the Ohio River.” Joint Stip. ¶ 4. That health goal is 14 times greater than the current drinking water standards for HFPO-DA. ECF No. 45 at 5.

12. In its 2018 fact sheet for the Permit, WVDEP stated that, although there were no federal health guidelines at that time for HFPO-DA, “laboratory studies on animals show negative effects to the liver and blood, along with cancer of the liver, pancreas, and testicles.” Joint Stip. ¶ 4.

13. Exposure to HFPO-DA through drinking water can result in “health effects . . . on the liver, kidneys, the immune system, [and] development of offspring” with the liver being especially vulnerable to HFPO-DA exposure. ECF No. 65-22 at 2.

14. The U.S. Environmental Protection Agency (“EPA”) has listed HFPO-DA on the Toxics Release Inventory “pursuant to [Emergency Planning and Community Right-to-Know Act] section 313(d)(2)(B)(ii) for serious or irreversible reproductive dysfunctions and other chronic effects on the liver, development, hematological system, and immune system after oral exposure.”

89 Fed. Reg. 81776, 81785 (Oct. 8, 2024).

15. Plaintiff’s expert in regulatory and molecular toxicology, Dr. Schlezinger, testified that “there is ample scientific evidence that HFPO-DA is toxic and growing evidence that it is more toxic than perfluorooctanoic acid (“PFOA”)” ECF No. 66-11 ¶ 14. Chemours stipulated to Dr. Schlezinger’s qualifications as an expert. May 22 Tr. 195:4–7.

16. Exposure to excess HFPO-DA in domestic water causes adverse health effects in developing fetuses. May 22 Tr. 200:15–201:125 (Schlezinger).

17. Chemours monitors its discharges from Outfalls 002 and 005 at the Washington Works Plant pursuant to the requirements of the Permit. Joint Stip. ¶ 6.

18. In its monthly discharge monitoring reports, or “DMRs,” Chemours reported the following concentrations of HFPO-DA in the effluent from Outlets 002 and 005 between August 2023 and March 2025:

Month	Outlet	Avg Limit (µg/l)	DMR (µg/l)	Max Limit (µg/l)	DMR (µg/l)
May-24	002	1.4	2.63	2.3	0.92
Jun-24	002	1.4	1.47	2.3	4.60
Jul-24	002	1.4	1.47	2.3	2.88
Aug-24	002	1.4	1.79	2.3	7.86
Sep-24	002	1.4	0.38	2.3	0.77
Oct-24	002	1.4	0.46	2.3	1.35
Nov-24	002	1.4	7.76	2.3	15.70
Dec-24	002	1.4	2.05	2.3	3.75
Jan-25	002	1.4	0.56	2.3	0.86
Feb-25	002	1.4	2.8	2.3	8.00
Mar-25	002	1.4	1.3	2.3	2.60
*	*	*	*	*	*
May-24	005	1.1	0.32	2.3	0.50
Jun-24	005	1.1	0.66	2.3	1.49

Jul-24	005	1.1	1.36	2.3	2.56
Aug-24	005	1.1	2.09	2.3	6.98
Sep-24	005	1.1	1.52	2.3	1.96
Oct-24	005	1.1	1.43	2.3	4.11
Nov-24	005	1.1	2.93	2.3	3.55
Dec-24	005	1.1	2.55	2.3	4.05
Jan-25	005	1.1	1.67	2.3	3.66
Feb-25	005	1.1	3.4	2.3	8.90
Mar-25	005	1.1	2.0	2.3	3.30

Joint Stip. ¶ 6.

19. Chemours admits it “has had exceedances of its permit discharge limits for HFPO-DA.” ECF No. 17 at 1. Chemours admits that its noncompliance is longstanding and continuing. *See generally* Joint Stip. ¶ 6; *see also* May 21 Tr. 76:10–15 (“THE COURT: Well, in that regard, Mr. Walls, I’m sitting here thinking, you’ve known about this for, to my knowledge, at least seven years that you’ve been in noncompliance. MR. WALLS: We have.”).

20. Chemours knew, at least as early as April 2021, that it could not comply with its HFPO-DA limits on Outlets 002 and 005. Hollingsworth Decl., ECF No. 17-1 ¶¶ 22, 30.

21. Chemours will continue violating its Permit limits for HFPO-DA until it completes installation of an upgraded treatment system, which, at the time of the preliminary injunction hearing, Chemours expected to take 27 months after EPA approves Chemours’s plans, which had not yet occurred. May 21 Tr. 105:2–7 (Hollingsworth); May 22 Tr. 19:11–17 (Hollingsworth).

22. In April 2024, EPA set a Maximum Contaminant Level Goal (“MCLG”) for HFPO-DA of 10 ppt under the federal Safe Drinking Water Act (“SDWA”). 89 Fed. Reg. 32532, 32744 (April 26, 2024); 40 C.F.R. § 141.50(b)(35).

23. The MCLG for HFPO-DA is the “health-based risk assessment value.” May 22 Tr. 197:7–198:21 (Schlezingar). EPA has stated that the MCLG is based on a chronic toxicity value

that “represents the daily exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime.” 89 Fed. Reg. at 32546. EPA defines it as “the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur, and which allows an adequate margin of safety.” 40 C.F.R. § 141.2. The MCLG is “based on a reference dose,” which is “the amount of a chemical or contaminant that can be consumed on a daily basis without an increase in risk of an adverse health effect over a lifetime.” May 22 Tr. 198:14–21 (Schlezing). A person has to “avoid exceeding that value [the MCLG of 10 ppt] every day for your life to avoid increased risks of adverse health effects.” *Id.* 198:18–21 (Schlezing). Accordingly, the Court finds, based on the totality of the evidence in the record, that exposure to domestic water with HFPO-DA concentrations above 10 ppt on any single day is an injury to human health.

24. Unlike the MCLG, which is based solely on health considerations, the Maximum Contaminant Level (“MCL”) is set “as close to that public health goal as feasible, taking costs into consideration.” 89 Fed. Reg. at 32573. The MCL for HFPO-DA is a “risk management tool” that includes “consideration of other factors [other than health], such as economic, social and political factors.” May 22 Tr. 197:12–198:2 (Schlezing).

25. EPA set the MCL for HFPO-DA at 10 ppt, as measured on an annual average. 89 Fed. Reg. at 32745; 40 C.F.R. § 141.61(c), Table 2. The “running annual average component” is a risk management aspect of the MCL for HFPO-DA and is not science-based. May 22 Tr. 198:3–7 (Schlezing).

26. The deadline for compliance with the MCL is April 26, 2029. 89 Fed. Reg. at 32533; 40 C.F.R. § 141.900(b)(4).

27. Plaintiff West Virginia Rivers Coalition (“WVRC”) is a nonprofit organization

incorporated in West Virginia that works to promote the overall health of West Virginia's waters and their downstream benefits. Robinson Decl., ECF No. 66-12 ¶ 3.

28. For most of the past 24 years, Plaintiff's member Charlise Robinson has obtained her household domestic water from the Lubeck Public Service District water system, which is the closest public water supply downstream from Chemours's Washington Works Plant. ECF No. 66-12 ¶¶ 4, 7; Joint Stip. ¶ 12.

29. Chemours used Lubeck as the compliance point to define its proposed mixing zone for its wastewater discharges and to protect public drinking water. ECF No. 7-3 at 5; ECF No. 7-21 at 2–3. The mixing zone extends to one-half mile upstream from Lubeck's well field. Joint Stip. ¶ 12.

30. Lubeck's well field is adjacent to the Ohio River and 39% of the volume pumped by Lubeck from that wellfield is derived from induced infiltration from the Ohio River. Joint Stip. ¶ 12.

31. In September 2022, Chemours measured HFPO-DA at concentrations of 14 to 15 ppt along the east bank of the Ohio River approximately 0.5 miles upstream of the Lubeck Public Service District drinking water facility. Hoagland Decl., ECF No. 66-13 ¶ 32. In late 2024 and early 2025, Chemours measured HFPO-DA at concentrations above 10 ppt at this same location on multiple occasions. *See* ECF No. 66-15 (Report Result column); May 23 Tr. 18:15–22:1 (Hoagland).

32. Chemours's expert Catherine Boston omitted those analytic results when she calculated what she represented as the "annual average" HFPO-DA concentration in the Ohio

River one-half mile upstream from the Lubeck Public Service District. *See* Hoagland Decl., ECF No. 66-13 ¶¶ 30–33; May 23 Tr. 17:17–18:14 (Hoagland); ECF No. 65-11.

33. As of February 12, 2018, Lubeck’s well field had no detectable level of HFPO-DA before or after treatment. *See* ECF No. 65-23.

34. In 2023 and 2024, Lubeck’s well field had HFPO-DA levels ranging from 29 ppt to 62 ppt. *See* ECF No. 66-6 at 36–38 (Table 18, see “Prior to Treatment Sample” entries); *see also* May 23 Tr. 23:2–24:6 (Hoagland). In 2006, tests showed that Ms. Robinson had PFAS in her blood at levels up to 21.9 ppt. In 2005, she had preeclampsia, which is linked to PFAS exposure. ECF No. 66-12 ¶¶ 8–12. “[T]he median level of PFOA measured in people living in Lubeck between 2005 and 2006 was 17 times the average level.” May 22 Tr. 205:6–12 (Schlezinger). Due to their past exposure to PFAS and high body burden, Ms. Robinson and other Lubeck residents are “starting with already an increased health risk.” *Id.* 205:23–206:1. They have been exposed to multiple PFAS compounds, which together “produce combined toxicity that is greater than the toxicity of each individual PFAS.” ECF No. 66-11 ¶¶ 17, 20–23; May 22 Tr. 240:14–25 (Schlezinger).

35. In June 2024, Lubeck notified its customers that because of a treatment failure, the level of PFOA in its finished drinking water spiked to 179.5 ppt in March 2024 and that level created risks to public health. ECF No. 66-12 ¶ 20; Joint Stip. ¶ 13.

36. The measured levels of HFPO-DA in Lubeck’s finished drinking water exceeded 10 ppt on October 16, 2023 (15 ppt), November 13, 2023 (24 ppt), April 9, 2024 (13 ppt), April 29, 2024 (30 ppt), May 20, 2024 (40 ppt), and October 21, 2024 (20 ppt). Joint Stip. ¶ 14. Residents exposed to such levels, including Ms. Robinson, suffer an “actual injury” as “defined by the MCLG.” May 22 Tr. 209:15–19, 216:4–16, 216:19–217:16 (Schlezinger).

37. Plaintiff's toxicology expert, Dr. Schlezinger, testified that a person's exposure to drinking water with HFPO-DA above 10 ppt on just one day increases that person's risk of an adverse human health effect. *See* May 22 Tr. 198:14–199:9, 201:16–25, 233:23–25, 235:14–18. The Court finds all of Dr. Schlezinger's testimony credible and persuasive.

38. Chemours's toxicology expert, Catherine Boston, made many "prior inconsistent conclusions and statements." May 22 Tr. 184:24–185:1. Ms. Boston failed to recognize the distinction between the MCLG and the MCL and opined incorrectly that both were calculated the same way using a running annual average. May 22 Tr. 104:11–25, 175:20 ("the MCL equals the MCLG"). Her opinion that exposure to HFPO-DA at levels below that average have no adverse human health effects misreads the SDWA regulations and is incorrect. *Id.* 127:6–10. In any event, she did not follow EPA protocols for calculating the annual average, and the annual average for Lubeck was actually 11.4 ppt, which exceeds the MCL. *Id.* 176:20–184:18 (Boston cross); 212:1–214:19 (Schlezinger). Ms. Boston's testimony is also at odds with her prior scientific publications, which stress that "[p]rotecting public health means preventing exposure to all PFASs that are present in water supplies. . . prevention may be accomplished only by controlling and decreasing exposures to PFASs already in the environment." ECF No. 66-10 at 115. For these reasons, the Court finds Ms. Boston's testimony not credible, unless otherwise stated.

39. Among Ms. Boston's opinions that this Court finds not credible is her opinion that the annual running average in treated water at Lubeck has not exceeded 10 ppt. That is because Ms. Boston fundamentally misunderstood how EPA would calculate a running annual average and ignored the impact of the May 20, 2024 concentration of 40 ppt. May 22 Tr. 176:20–184:18 (Boston cross). Moreover, Ms. Boston's conclusion on that point is controverted by Dr. Schlezinger's credible and persuasive opinion, supported by data, that it is more likely than not

that the Lubeck system distributed water with a running annual average HFPO-DA concentration greater than 10 ppt. *Id.* 212:14–214:18.

40. Because of her health concerns, Ms. Robinson wants to reduce her exposure to PFAS as much as possible. ECF No. 66-12 ¶ 29. As a result, Ms. Robinson stopped using water from the Lubeck system for drinking and cooking, but she still uses that water for brushing her teeth, bathing, laundry, cleaning, and watering her plants (including vegetables and herbs). *Id.* ¶¶ 16–17. Plaintiff’s expert Dr. Schlezinger testified that Ms. Robinson is injured by her exposure to HFPO-DA in her domestic water at levels above the MCLG, and that this injury is incalculable. May 22 Tr. 201:16–25, 216:4–217:16, 218:15–21, 232:14–25. Dr. Schlezinger testified that these “actual harms” to Ms. Robinson and other Lubeck water users will continue because Chemours expects “that there would be continued noncompliance with the -- the HFPO-DA leaving the Washington Works plant.” *Id.* 202:1–19.

41. Cincinnati’s drinking water utility, the Greater Cincinnati Water Works, serves approximately 1.1 million customers and is approximately 270 river miles downstream of the Washington Works Plant. *See* ECF No. 8 at 4 (citing ECF No. 7-11); ECF No. 66-16 ¶ 2. It obtains 90% of its water from the Ohio River. ECF No. 66-16 ¶ 3.

42. Until mid-2024, Cincinnati measured levels of HFPO-DA in its intake water that were mostly below the detection limit. ECF No. 66-16 ¶ 6 & Figure 1. Since July 2024, Cincinnati detected HFPO-DA in every intake water sample, with concentrations as high as 17 ppt. *Id.* ¶ 7, Figure 1. The increased levels correspond to increased Chemours’s discharges. *Id.* ¶¶ 9–10 & Figure 2.

43. Greater Cincinnati Water Works “is concerned that the current elevated levels of [HFPO-DA] reportedly being discharged by Chemours from its Washington Works Plant in West

Virginia may present an increased public health risk to communities in Kentucky and Ohio that utilize the Ohio River as the source of their drinking water.” ECF No. 66-16 ¶ 12.

44. Louisville’s drinking water utility, Louisville Water, serves approximately one million customers and is approximately 400 river miles downstream of the Washington Works Plant. *See* ECF No. 8 at 4–5 (citing ECF No. 7-11); ECF No. 66-17 ¶ 2. It obtains approximately 70% of its water from the Ohio River. ECF No. 66-17 ¶ 3.

45. Until late 2024, Louisville Water measured levels of HFPO-DA in its intake water that were generally below the detection limit. ECF No. 66-17 ¶ 6. In the fourth quarter of 2024, monitoring results at the intake “indicated significant increases in the concentration of HFPO-DA (GenX) in the Ohio River at Louisville,” with levels reaching as high as 52 ppt. *Id.* ¶¶ 7–8. The increased levels correspond to increases in Chemours’s discharges of HFPO-DA from the Washington Works Plant. *Id.* ¶¶ 8–10; May 23 Tr. 69:9–13.

46. Louisville Water is concerned that the elevated levels of HFPO-DA being discharged from the Washington Works Plant “will impact the operation of downstream drinking water utilities, including Louisville Water, and their availability to implement advanced treatment . . . thus presenting an adverse health risk to the communities that use the Ohio River as their source of drinking water.” ECF No. 66-17 ¶ 12.

47. Other drinking water plants along the Ohio River downstream from Chemours may also be at risk. ECF No. 66-8 at 8–9. One plant in Kentucky had an annual average HFPO-DA concentration of approximately 25 ppt and it is unknown if that water system has treatment capable of removing the HFPO-DA. *Id.*

48. Even if a drinking water plant has treatment in place that can remove HFPO-DA, those treatment systems can and do fail. The typical treatment systems in place—granulated

activated carbon (“GAC”) treatment—are not as effective as removing HFPO-DA (compared to PFOA) according to Chemours’s own witness Mr. Hartten. May 22 Tr. 72:23–73:3; *see also* Joint Stip. ¶ 14 (six occasions where HFPO-DA levels exceed 10 ppt at Lubeck in finished water despite GAC treatment system in place). When treatment systems fail, the public is not always notified or there is a lag time in notifying the public. Joint Stip. ¶ 13 (public notification of March 2024 treatment failure at Lubeck not made until June 2024); *see also* May 22 Tr. 73:9–16 (Hartten). Thus, the public cannot know if its drinking water is contaminated with HFPO-DA above 10 ppt until it is too late (i.e., after they have already been exposed to the contaminated drinking water).

49. Chemours is the only known source of HFPO-DA within 100 miles of its Washington Works Plant that could account for the levels of that chemical found at Lubeck or in the Ohio River. May 21 Tr. 67:3–6 (Hollingsworth); May 23 Tr. 25:14–26:4 (Hoagland), 55:8–17, 62:12–15, 71:14–72:7 (Hoagland).

50. Chemours’s predecessor Dupont developed and used HFPO-DA as a replacement for PFOA in fluoropolymer production. ECF No. 65-2 at 13. The EPA, “through a Toxic Substances Control Act Section 5(e) Consent Order (“TSCA Order”) executed by DuPont on January 28, 2009, granted DuPont approval, under conditions set forth in the TSCA Order, to commercially manufacture, process, and distribute the processing aid (HFPO-DA).” *Id.* In the TSCA Order, EPA required that HFPO-DA “be recovered, recycled and/or destroyed at levels achieving 99% efficiency” and required that DuPont “directly sell the substances only to customers, if any, that achieve comparable recovery or destruction.” ECF No. 65-24 at xiv. Chemours, as DuPont’s successor in interest, is subject to that TSCA Order. *See generally* ECF No. 65-25 (Notice of Violation issued to Chemours for violating TSCA Order). Chemours should thus know who it sells its patented HFPO-DA to but has not identified another source that could

be contributing to the HFPO-DA seen in Lubeck's wellfield or in the Ohio River.

51. EPA has stated that HFPO-DA is "more mobile than longer chain PFAS, leading to the potential to result in exposure at greater distances than legacy PFAS in off-site transport or in ground water." ECF No. 65-22 at 2.

52. According to a study cited by Chemours in its fate and transport analysis for HFPO-DA from its Fayetteville, NC facility (ECF No. 65-18 at 10, 18), "HFPO-DA is subject to long range transport over vast distances by water" and can "reach any area in the world before any significant amount of substance degradation has occurred." ECF No. 65-19 at 39–40.

53. Plaintiff's fate and transport expert, Dr. Hoagland, testified that, compared to C8 (PFOA), HFPO-DA is "more mobile," is "less likely to stick to organic carbon or sediments," and "is not going to be attenuated as much. It's going to move further away from the source." May 23 Tr. 7:18–25. Chemours stipulated that Dr. Hoagland is qualified as an expert in geochemistry and fate-and-transport. *Id.* 5:2–5. The Court finds that all of Dr. Hoagland's testimony is uncontroverted, credible, and persuasive.

54. The amount of HFPO-DA that Chemours discharges to the Ohio River is a function of production—the more Chemours produces, the more HFPO-DA it will discharge out of Outlets 002 and 005. *See, e.g.*, May 21 Tr. 106:24–107:8 (Hollingsworth); May 23 Tr. 44:2–7 (Hoagland). Chemours's air deposition of HFPO-DA is also a function of production—an increase in production increases the air deposition of HFPO-DA onsite and offsite. *See* May 21 Tr. 107:20–22 (Hollingsworth). If Chemours reduced its production, it would also reduce its HFPO-DA discharges. *Id.* 130:5–8 (Hollingsworth); May 23 Tr. 44:8–12 (Hoagland).

55. Ceasing production at the Washington Works Plant would reduce or eliminate Chemours's permit violations at Outlets 002 and 005 for HFPO-DA. ECF No. 66-1 (Chemours

document showing no violations at Outlet 005 during 50- to 55-day shutdown at the Washington Works Plant in 2023 and at most two violations at Outlet 002 during same shutdown); *see* May 21 Tr. 110:15–116:7 (Hollingsworth testimony discussing the shutdown, the lack of violations during the shutdown, and Plaintiff’s Exhibits 1 and 2)..

56. Chemours has “not tried to reduce production” to address its HFPO-DA violations. May 21 Tr. 116:10–19 (Hollingsworth). Chemours’s plant manager Mr. Hollingsworth testified that it is possible to reduce production by turning down its monomer plant. *Id.* 133:24–135:8.

57. Chemours increased its production at the Washington Works Plant in September of 2024 when it added a second PFA line. *See, e.g.*, May 21 Tr. 116:21–23 (Hollingsworth). The reactors that feed PFA Line 2 discharge HFPO-DA through Outlets 002 and 005. Hollingsworth Decl., ECF No. 17-1 ¶ 40; May 21 Tr. 117:10–23 (Hollingsworth). Chemours’s HFPO-DA Permit violations at Outlets 002 and 005 increased in frequency and amount around the same time that PFA Line 2 came online. Joint Stip. ¶ 6; May 21 Tr. 121:12–21 (Hollingsworth); Hoagland Decl., ECF No. 66-13 ¶ 22 (bottom figure); May 23 Tr. 13:22–14:5, 14:20–15:4 (Hoagland). Chemours’s increased Permit violations for HFPO-DA at Outlets 002 and 005 are likely due to PFA Line 2.

58. The increased HFPO-DA discharges in late 2024 are correlated with elevated levels of HFPO-DA that Cincinnati and Louisville detected in their intake water during the same time period. ECF Nos. 66-16 (Swertfeger Decl.) & 66-17 (Goodman Decl.); May 23 Tr. 33:13–34:1 (Hoagland). At the hearing, the Court noted “the direct correlation, at least by comparison, between the outfall amounts and the amounts measured by the water companies.” May 23 Tr. 35:25–36:3.

59. Dr. Hoagland testified that the HFPO-DA levels detected by Cincinnati and Louisville are attributable to Chemours’s discharges from Outlets 002 and 005. *See* May 23 Tr. 31:17–23, 33:13–34:1; 69:9–13; Hoagland Decl., ECF No. 66-13 ¶ 25. She also testified that

Chemours's discharges could reach Louisville in 4 to 35 days, depending on river flow. May 23 Tr. 83:22–84:1. Chemours did not offer any expert testimony rebutting Dr. Hoagland's opinions on these points, and they are thus uncontroverted.

60. Chemours presented testimony regarding the estimated job loss if the Court orders the Washington Works Plant to shut down but presented no evidence of any job loss if the Court only orders a reduction in production. May 21 Tr. 68:18–70:19, 135:11–15, 136:12–15 (Hollingsworth).

61. Chemours currently shuts down every three years for 50 to 55 days with no job loss. May 21 Tr. 85:15–86:20 (Hollingsworth). Chemours previously shut down every year for 50 to 55 days with no job loss. *Id.* 138:4–22 (Hollingsworth). Shutting down PFA Line 2 would not require Chemours to shut down the rest of the Washington Works Plant and would only impact approximately 25 to 30 employees. *See id.* 116:24–117:1, 136:9–11, 134:21–23 (Hollingsworth).

62. Chemours asserts that the products manufactured at the Washington Works Plant are critical to the United States economy and national security interests. *See* Amended Walck Decl., ECF No. 53-1. However, Chemours admits that it produces PFA, FEP, and PTFE elsewhere (including in Japan, China, and the Netherlands), and that those products are of the same quality as those manufactured at the Washington Works Plant. May 21 Tr. 141:5–16, 20–25, 143:13–144:1 (Hollingsworth); May 22 Tr. 60:4–19 (Walck). Competitors of Chemours also produce PFA, FEP, and PTFE elsewhere. May 21 Tr. 142:1–6, 142:13–18 (Hollingsworth); May 22 Tr. 43:10–15, 58:24–59:17 (Walck); Hollingsworth Decl., ECF No. 17-1 ¶¶ 53, 71.

63. Chemours presented no credible testimony that a temporary reduction of production at the Washington Works Plant could not be made up by production at other facilities because no evidence regarding the capacity of other producers was presented. May 21 Tr. 141:5–16, 141:20–

25, 144:11–15, 142:20–143:4 (Hollingsworth).

64. Even if a shortfall from a reduction in production at the Washington Works Plant could not be covered by other producers, not all of Chemours's PFA, FEP, or PTFE goes to critical products or to U.S. businesses. Hollingsworth Decl., ECF No. 17-1 ¶¶ 49, 63, 70; May 21 Tr. 140:10–14 (Hollingsworth).

65. Chemours presented no credible testimony (or at most only speculative testimony) that a reduction of production at the Washington Works Plant would impact medical devices because only a small portion of Chemours's products go to medical devices. May 21 Tr. 146:20–147:24 (Hollingsworth).

66. Chemours presented no credible testimony (or at most only speculative testimony) that a reduction of production at the Washington Works Plant would impact U.S. Department of Defense weapons or other similar products. May 22 Tr. 61:5–8, 53:25–55:6 (Walck).

67. Chemours presented no credible testimony (or at most only speculative testimony) that a reduction of production at the Washington Works Plant would impact domestic semiconductors. May 21 Tr. 139:23–140:14, 140:10–14 (Hollingsworth); May 22 Tr. 58:8–23, 56:19–57:24 (Walck). Only 50% of Chemours's products goes to global semiconductors, May 21 Tr. 139:23–140:14 (Hollingsworth), and Chemours's witnesses failed to conduct any empirical analysis or modeling on whether a temporary shutdown or reduction in production would impact the domestic semiconductor sector. May 22 Tr. 58:8–23 (Walck).

68. Chemours raised no national security or economic concerns when it sought the Permit, and did not challenge the condition which eliminates any defense based on reduced production. May 21 Tr. at 13:6–15.

69. Based on the totality of the record evidence, the Court concludes that a temporary

shutdown or reduction in Chemours's fluoropolymer production would not impact either national security or the national economy.

70. On April 26, 2024, Plaintiff notified Chemours of its intent to file a citizen suit against it under Section 505 of the Clean Water Act ("CWA"), 33 U.S.C. § 1365. ECF Nos. 7-22 (Notice Letter), 7-23 Appendix 1 (certified mail receipts).

71. More than 60 days after sending their notice letter, Plaintiff filed its Complaint on December 5, 2024. ECF No. 1.

72. Neither WVDEP nor EPA has filed a judicial action against Chemours for the violations at issue in the Complaint or issued civil penalties for those same violations. ECF No. 7-23 ¶ 5.

73. In April 2023, Chemours and EPA entered into an Administrative Order on Consent ("AOC") for the purpose of addressing NPDES Permit compliance issues at Chemours's Washington Works Plant. Joint Stip. ¶ 10. The AOC required, among other things, that Chemours submit an Alternatives Analysis and Implementation Plan within 120 days of the AOC. Chemours submitted the required Plan within 120 days, on August 24, 2023. *Id.* The AOC did not impose any civil penalties on Chemours. ECF No. 65-3. The AOC directed Chemours to comply with its Permit but did not contain a compliance deadline. *Id.*; May 21 Tr. 46:14–16.

74. Chemours submitted a revised plan to EPA in April 2025. ECF No. 65-6. EPA conditionally approved parts of that plan in May 2025. ECF No. 65-14. According to the revised plan, Chemours intends to divert and treat process flow streams into Outlets 002 and 005, capture and treat stormwater into Outlets 001 and 006, treat intake water from its East and West Well fields, collect, transport, and dispose of one process flow stream offsite, and implement a pollutant minimization program for its stormwater. ECF No. 65-6 at 6. The goal is a 50% reduction in

HFPO-DA mass loading and 29% reduction in PFOA mass loading. *Id.* at 5. Chemours estimated at the hearing that implementation of the plan will take 27 months to complete. May 21 Tr. 71:12–15 (Hollingsworth).

Conclusions of Law

Standing

1. In evaluating a plaintiff’s evidence of standing at the preliminary injunction stage, “the court must take such evidence as true and draw all reasonable inferences therefrom in a light most favorable to the plaintiff.” *Courtland Co., Inc. v. Union Carbide Corp.*, No. 2:21-CV-00101, 2021 WL 1255416, at *10 (S.D. W. Va. Apr. 5, 2021).

2. Section 505(g) of the CWA authorizes the filing of a citizen suit by “any person or persons having an interest which is or may be adversely affected.” 33 U.S.C. § 1365(g). This provision confers standing to the limits of the U.S. Constitution. *Middlesex County Sewerage Auth. v. Nat’l Sea Clammers Ass’n*, 453 U.S. 1, 16–17 (1981). To have constitutional standing, a plaintiff must suffer an actual or threatened injury-in-fact that is fairly traceable to the challenged action by the defendant and is likely to be redressed by a favorable decision. *Friends of the Earth v. Laidlaw Env’t Servs.*, 528 U.S. 167, 180–81 (2000).

3. Plaintiff is an environmental association which has standing to sue in federal court as the representative of its members who have been harmed. *Friends of the Earth v. Gaston Copper Recycling Corp.*, 204 F.3d 149, 155 (4th Cir. 2000) (en banc) (“*Gaston Copper*”).

4. An organization has representational standing when (1) at least one of its members would have standing to sue in his or her own right; (2) the organization seeks to protect interests germane to the organization’s purpose; and (3) neither the claim asserted nor the relief sought requires the participation of individual members in the lawsuit. *Gaston Copper*, 204 F.3d at 155.

The action is germane to WVRC's purposes of protecting the environmental integrity of the Ohio River. Because this action is one for injunctive and declaratory relief and not for monetary damages, individual WVRC members are not required to participate in the action.

5. As to the first element, to meet the constitutional minimum for standing, an organizational plaintiff's member "must allege personal injury fairly traceable to the defendant's allegedly unlawful conduct and likely to be redressed by the requested relief." *Gaston Copper*, 204 F.3d at 155 (quotation and citation omitted). This formula includes three elements: (1) injury in fact, (2) traceability, and (3) redressability. *Id.* (citing *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560–61 (1992)).

6. The injury-in-fact prong of standing "is one of kind and not of degree" and "an identifiable trifle, if actual and genuine, gives rise to standing." *Gaston Copper*, 204 F.3d at 156 (quoting *Conservation Council of N.C. v. Costanzo*, 505 F.2d 498, 501 (4th Cir. 1974)); *see also United States v. SCRAP*, 412 U.S. 669 (1973).

7. Environmental plaintiffs satisfy constitutional standing requirements when their members have suffered an injury to their aesthetic, health, environmental, or recreational interests. *Gaston Copper*, 204 F.3d at 154; *see also Laidlaw*, 528 U.S. at 183. A threatened injury is sufficient. *Clapper v. Amnesty Int'l USA*, 568 U.S. 398, 409 (2013).

8. To satisfy the traceability prong, the Fourth Circuit has explained that "a plaintiff must merely show that a defendant discharges a pollutant that causes or contributes to the kind of injuries alleged in the specific geographic area of concern." *Gaston Copper*, 204 F.3d at 161 (internal quotation marks omitted); *see also id.* at 162 ("Where a plaintiff has pointed to a polluting source as the seed of his injury, and the owner of the polluting source has supplied no alternative culprit, the 'fairly traceable' requirement can be said to be fairly met."). The traceability prong for

standing is met when plaintiff's member claims that her injuries result from excessive pollutants in the same stream into which defendant discharges those pollutants. *OVEC v. Marfork Coal*, No. 5:12-cv-1464, 2013 WL 4509601, at *5 (S.D. W. Va. Aug. 23, 2013).

9. An environmental plaintiff satisfies the redressability prong of standing when it shows that it is likely that injunctive relief will remedy its injury. *Gaston Copper*, 204 F.3d at 154. Importantly, however, it need not show that an injunction would restore the watershed to a pristine state. *OVEC v. Hobet Mining, LLC*, 702 F. Supp. 2d 644, 652 (S.D. W. Va. 2010) (citing *Student Pub. Int. Rsch. Grp. of N.J., Inc. v. Ga.-Pac. Corp.*, 615 F. Supp. 1419, 1424 (D.N.J. 1985)). It is enough that the risk of injury is reduced. *Massachusetts v. EPA*, 549 U.S. 497, 521 (2007); *see also Uzuegbunam v. Preczewski*, 592 U.S. 279, 291 (2021) (“[T]he ability to effectuate a partial remedy satisfies the redressability requirement.”) (internal quotation marks omitted).

10. Plaintiff is suing on behalf of, among others, its member Charlise Robinson. Ms. Robinson is injured by Chemours's discharges because she obtains her household's domestic water from Lubeck's public drinking water system. That system is downstream from Chemours's discharges and uses Ohio River water. Lubeck's source water, and its finished drinking water, have contained levels of HFPO-DA that are harmful to her health and have caused her reasonable concern.

11. Ms. Robinson's injury is fairly traceable to Chemours's discharges because Chemours's PFAS treatment and compliance strategy is designed to protect Lubeck's drinking water supplies. There is an exposure pathway that runs from Chemours's Outlets 002 and 005, to the Ohio River, to Lubeck's well field, to Lubeck's finished drinking water, to Ms. Robinson's use of that water. HFPO-DA has been detected and measured at each of those pathway locations and PFAS have been detected in Ms. Robinson's blood.

12. Ms. Robinson's injury is redressable because reducing HDPO-DA in Chemours's discharges will reduce her risk of exposure to that chemical in her household and drinking water.

13. Plaintiff thus has associational standing under Article III to bring this CWA enforcement action.

Statutory Preclusion

14. The CWA prohibits any person from discharging any pollutant without specific authorization. 33 U.S.C. § 1311(a).

15. Permittees who violate their NPDES permits are subject to federal and state enforcement actions. 33 U.S.C. §§ 1319, 1342(b)(7).

16. In addition, citizens may sue any person who violates any term or condition of an NPDES permit. 33 U.S.C. §§ 1365(a)(1), (f)(6).

17. Citizen suits are subject to three statutory limitations. First, the citizen must give 60 days' advance notice of his intent to file suit to the EPA, the State, and the violator. 33 U.S.C. § 1365(b)(1)(A). Second, a citizen may not sue if EPA or the State bring certain types of judicial enforcement actions. *Id.* §§ 1365(b)(1)(B), 1319(g)(6). Third, a defendant in a CWA citizen suit must be "alleged to be in violation" of the Act. *Id.* § 1365(a)(1).

18. Plaintiff gave the requisite 60-day notice, and neither WVDEP nor EPA has filed the type of judicial enforcement action that would have preclusive effect on this citizen suit.

19. Plaintiff has also satisfied the standard set forth in *Chesapeake Bay Foundation, Inc. v. Gwaltney of Smithfield*, 484 U.S. 49 (1987), because Chemours has continued to violate the Permit after the Complaint was filed, and remains in violation.

20. The statutory limitations of the CWA citizen suit provision therefore do not preclude this action.

The Preliminary Injunction Factors

21. Plaintiff has moved for a preliminary injunction to prohibit Chemours from violating its Permit limits for HFPO-DA at Outlets 002 and 005 by any means necessary, including (1) reducing the production that generates process wastewater containing HFPO-DA, and/or (2) sending process wastewater off-site for disposal by deep-well injection or incineration, as Chemours does for its PFAS-contaminated wastewater at its Fayetteville, NC facility.

22. A plaintiff seeking a preliminary injunction must establish that it is likely to succeed on the merits, that it is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in its favor, and that an injunction is in the public interest. *Real Truth About Obama, Inc. v. Fed. Election Comm’n*, 575 F.3d 342, 346 (4th Cir. 2009), *cert. granted, judgment vacated*, 559 U.S. 1089 (2010), *adhered to in part sub nom*, 607 F.3d 355 (4th Cir. 2010).

23. “Because preliminary injunction proceedings are informal ones designed to prevent irreparable harm before a later trial governed by the full rigor of usual evidentiary standards, district courts may look to, and indeed in appropriate circumstances rely on, hearsay or other inadmissible evidence when deciding whether a preliminary injunction is warranted.” *G.G. ex rel. Grimm v. Gloucester County Sch. Bd.*, 822 F.3d 709, 725–26 (4th Cir. 2016), *vacated and remanded on other grounds*, 580 U.S. 1168 (2017).

24. Although the rules of evidence are relaxed at the preliminary injunction stage, the Court must still evaluate the weight of the evidence before it, and “statements based on belief rather than personal knowledge may be discounted.” *Imagine Medispa, LLC v. Transformations, Inc.*, 999 F. Supp. 2d 862, 869 (S.D. W. Va. 2014) (citing Federal Practice & Procedure § 2949); *see also G.G. ex rel. Grimm*, 822 F.3d at 725 (recognizing that, even though the Federal Rules of Evidence may be relaxed at the preliminary injunction stage, the nature of the evidence still

informs the weight the court should give that evidence).

Factor One: Likelihood of Success on the Merits

25. Plaintiff is likely to succeed on the merits of its CWA claims. The CWA imposes strict liability for permit violations. *See, e.g., Sierra Club v. W. Va. Dep't of Env't Prot.*, 64 F.4th 487, 503 (4th Cir. 2023); *Stoddard v. W. Carolina Reg'l Sewer Auth.*, 784 F.2d 1200, 1208 (4th Cir. 1986) (“Liability under the Clean Water Act is a form of strict liability.”). A violation of a permit requirement by a discharger is an automatic violation of the CWA. *PIRG v. Rice*, 774 F. Supp. 317, 325 (D.N.J. 1991). The burden of measuring and reporting pollutant levels is on permit holders. *See, e.g., Sierra Club v. Powellton Coal Co.*, 662 F. Supp. 2d 514, 516 (S.D. W. Va. 2009). A discharger’s culpability or good faith does not excuse a violation. *United States v. CPS Chem. Co.*, 779 F. Supp. 437, 442 (E.D. Ark. 1991).

26. Chemours has reported violating its Permit limits for HFPO-DA at Outlets 002 and 005 from August 2023 through March 2025. Discharge Monitoring Reports or DMRs are binding admissions that may be used to establish liability under the CWA. *OVEC v. Hobet Min., LLC*, 723 F. Supp. 2d 886, 923 (S.D. W. Va. 2010). In addition, Chemours admits that its existing treatment system at the Washington Works Plant is incapable of complying with its Permit limits and that it will continue violating those limits until it upgrades that system.

27. After comparing the Permit limits with Chemours’s actual discharges in the Joint Stipulation, the Court concludes as a matter of law that Chemours has violated its Permit limits for HFPO-DA at Outlets 002 and 005. Thus, Plaintiff is certain to succeed on the merits.

Factor Two: Irreparable Harm

28. This Court concludes that multiple forms of irreparable harm are likely to occur in the absence of a preliminary injunction.

29. For irreparable harm, the standards are the same for either a preliminary injunction or a permanent injunction. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 32 (2008); *see also Cantley v. W. Va. Reg'l Jail & Corr. Facility Auth.*, 771 F.3d 201, 207 (4th Cir. 2014) (recognizing similarity of tests for preliminary and permanent injunctions); *Bethesda Softworks, L.L.C. v. Interplay Ent. Corp.*, 452 F. App'x 351, 354–55 (4th Cir. 2011) (“Despite the differences between preliminary and permanent injunctive relief, the same equitable principles undergird the courts’ authority in each posture.”) (unpublished opinion).

30. A party can obtain an injunction in a CWA citizen suit where it shows that “it or the public has suffered an irreparable injury.” *Courtland Co., Inc. v. Union Carbide Corp.*, No. 2:19-cv-00894, 2024 WL 4339600, at *6 (S.D. W. Va. Sept. 27, 2024); *see also Hazardous Waste Treatment Council v. State of S.C.*, 945 F.2d 781, 788 (4th Cir. 1991) (evaluating whether “the absence of a new facility to handle waste, including out-of-state waste, would create irreparable harm, not only to HWTC but to the public, because of the possible creation of additional untreated waste”); *see also E. Tenn. Nat. Gas Co. v. Sage*, 361 F.3d 808, 829 (4th Cir. 2004) (finding irreparable harm sufficient to support preliminary injunction based on, *inter alia*, “negative impacts” on natural gas consumers and hindrances to economic development in the absence of an injunction).

31. The Fourth Circuit holds that irreparable harm must be actual and imminent, rather than remote or speculative. *See, e.g., Direx Israel, Ltd. v. Breakthrough Med. Corp.*, 952 F.2d 802, 812 (4th Cir. 1991).

32. But the Fourth Circuit has never adopted the D.C. Circuit’s characterization of irreparable harm as “both certain *and great*,” to which Chemours points. *All. for Retired Ams. v. Bessent*, 770 F. Supp. 3d 79, 107 (D.D.C. 2025) (emphasis added) (quoting *Wis. Gas Co. v. FERC*, 758 F.2d 669, 674 (D.C. Cir. 1985)). “[T]he D.C. Circuit appears to maintain a higher bar for injunctive relief in these types of cases” *Am. Fed’n of State, County, & Mun. Emps., AFL-CIO v. Soc. Sec. Admin.*, No. 25-cv-0596, 2025 WL 1206246, at *69 (D. Md. Apr. 17, 2025). Indeed, the only Fourth Circuit opinion in which the D.C. Circuit’s characterization of irreparable harm as “certain and great” appears is an unpublished decision declining to stay the injunction issued in *American Federation of State, County, & Municipal Employees*, and even there it was within an appendix to the decision (the district court’s opinion on review). *Am. Fed. of State, County & Municipal Employees, AFL-CIO v. Social Security Admin.*, No. 25-1411, 2025 WL 1249608, *77 (4th Cir. Apr. 30, 2025) (unpublished opinion). Accordingly, the Fourth Circuit does not apply a magnitude requirement to measure whether harm is irreparable.

33. Plaintiff need not prove quantifiable or measurable harm to prove irreparable harm. *Blackwelder Furniture Co. of Statesville, Inc. v. Seilig Mfg. Co., Inc.*, 550 F.2d 189, 197 (4th Cir. 1977) (recognizing that irreparable harm is “not incalculably great or small, just incalculable”), *abrogated on other grounds by Real Truth About Obama*, 575 F.3d 342; *Phillips v. Crown Cent. Petroleum Corp.*, 602 F.2d 616, 630 (4th Cir. 1979) (“[F]uture injury of uncertain date and incalculable magnitude is irreparable harm, and protection from such an injury is a legitimate end of injunctive relief.”); *see also City of N.Y. v. Anglebrook Ltd. P’ship*, 891 F. Supp. 908, 927 (S.D.N.Y. 1995) (“Quantifiable harm is, of course, not a prerequisite to irreparable harm.”), *aff’d*, 58 F.3d 35 (2d Cir. 1995). Harm to a plaintiff’s aesthetic, recreational, and environmental interests constitutes irreparable harm in CWA cases, without proof of harm to public health.

Richland/Wilkin Joint Powers Auth. v. U.S. Army Corps of Eng'rs, 826 F.3d 1030, 1037–38 (8th Cir. 2016); *OVEC v. Fola Coal Co., LLC*, No. 2:13-cv-5006, 2015 WL 5972430, at *3 (S.D. W. Va. Oct. 14, 2015); *Hobet Min.*, 723 F. Supp. 2d at 924; *see also Sierra Club v. Trump*, 929 F.3d 670, 706 (9th Cir. 2019) (“Environmental injuries have been held sufficient in many cases to support injunctions”); *Sierra Club v. Franklin County Power of Ill., LLC*, 546 F.3d 918, 936 (7th Cir. 2008) (recognizing risk of increased pollution establishes likely irreparable harm to plaintiff environmental group).

34. In the environmental context, increased risk can constitute irreparable harm. *Sierra Club v. Marsh*, 872 F.2d 497, 500 (1st Cir. 1989). In this context, injunctive relief is available to prevent incremental increases in harm to human health and the environment.

35. Because harm to the environment that affects only recreational interests can constitute irreparable harm, *All. for the Wild Rockies v. Cottrell*, 632 F.3d 1127, 1135 (9th Cir. 2011), environmental harm that affects public health interests must also constitute irreparable harm. Irreparable harm to the environment necessarily means irreparable harm to an environmental plaintiff’s interests. *Sierra Club v. U.S. Army Corps of Eng'rs*, 645 F.3d 978, 995 (8th Cir. 2011).

36. Here, the Court need go no further than concluding that Chemours’s violations of WQBELs developed to protect human health and a drinking water source are conclusive evidence of irreparable harm.

37. To establish irreparable harm in the citizen suit context concerning a CWA NPDES permit violation, the plaintiff must show that the violation is not merely technical and will probably continue unless the defendant’s activity is enjoined. *See Bloodgood v. Garraghty*, 783 F.2d 470, 476 (4th Cir. 1986) (to obtain a preliminary injunction, “[t]he movant must provide proof that the

harm has occurred in the past and is likely to occur again, or proof indicating that the harm is certain to occur in the near future” (internal quotation marks omitted)).

38. Absent congressional intent otherwise, irreparable harm will not be presumed upon every violation of a federal environmental statute in actions for injunctive relief, because presuming harm in that scenario would improperly “focus[] on the statutory procedure rather than on the underlying substantive policy the process was designed to effect.” *Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 544–45 (1987). In other words, a plaintiff must prove more than a procedural violation to prove irreparable injury in order to receive an injunction. *See Anglebrook*, 891 F. Supp. at 926.

39. “[I]n distinguishing between procedural and substantive violations, courts look to the substantive policy of the Act, which is, here, the protection and maintenance of our Nation’s navigable waterways.” *Anglebrook*, 891 F. Supp. at 926 (citing *Amoco*, 480 U.S. at 542–53).

40. Achieving water quality standards is “one of the [CWA’s] central objectives.” *Arkansas v. Oklahoma*, 503 U.S. 91, 106 (1992). This Court has found that protecting water uses “is the overriding purpose of West Virginia’s water quality standards and the goal of the state’s permit requirements.” *OVEC v. Elk Run Coal Co.*, 24 F. Supp. 3d 532, 579 (S.D. W. Va. 2014).

41. WQBELs are established “to attain a particular water quality” and “are set at the level necessary to protect the designated uses of the receiving waterways.” *Gaston Copper*, 204 F.3d at 157; *see also* 33 U.S.C. § 1313(c)(2)(A), 40 C.F.R. § 131.3(b).

42. WQBELs are imposed “without regard to cost or technology availability” and “permit only those discharges that may be made without unduly impairing water quality.” *City & County of S.F. v. EPA*, 145 S. Ct. 704, 712 (2025) (internal quotation marks omitted). The CWA

requires that those water quality standards “shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter.” 33 U.S.C. § 1313(c)(2)(A).

43. Irreparable harm is likely to occur in the absence of a preliminary injunction. Chemours is discharging excessive and illegal amounts of HFPO-DA into the Ohio River. WVDEP set the current WQBEL for HFPO-DA at a level necessary to protect public health and water quality standards for drinking water from the Ohio River. When “discharge restrictions are set at the level necessary to protect the designated uses of the receiving waterways, their violation necessarily means that these uses may be harmed.” *Gaston Copper*, 204 F.3d at 157. “[A]ny violation of . . . water quality-based effluent limitations causes some degree of harm to the water quality of” the receiving body of water. *Pub. Int. Rsch. Grp. of N.J., Inc. v. Powell Duffryn Terminals, Inc.*, 720 F. Supp. 1158, 1162 (D.N.J. 1989).

44. Ms. Robinson is among the beneficiaries of those water quality standards and the HFPO-DA Permit limits because she obtains her drinking water from the Ohio River via the Lubeck system. Chemours’s violations of a WQBEL for HFPO-DA are strong evidence of irreparable harm to her health and well-being. Importantly, there are no other known or identified sources of HFPO-DA in the Ohio River and Lubeck’s public water system other than Chemours’s Washington Works Plant.

45. The violation of a WQBEL is sufficient to show irreparable harm. *See, e.g., OVEC v. Fola Coal Co., LLC*, No. 2:13-cv-21588, 2016 WL 3190255, at *10 (S.D. W. Va. June 7, 2016); *Hobet Min.*, 723 F. Supp. 2d at 924; *OVEC v. Apogee Coal Co., LLC*, 555 F. Supp. 2d 640, 648 (S.D. W. Va. 2008); *see also Idaho Conservation League v. Atlanta Gold Corp.*, 879 F. Supp. 2d 1148, 1159 (D. Idaho 2012); *Rice*, 774 F. Supp. at 328–29.

46. A pollutant does not need to be present in treated drinking water at levels harmful

to human health to establish irreparable harm in a CWA case. *Atlanta Gold Corp.*, 879 F. Supp. 2d at 1160 (the absence of a serious public health problem is irrelevant to irreparable harm because “[h]arm to the environment exists, even if municipal suppliers eventually remove the toxins from the water before it enters household taps” and “[i]t is not necessary for [a plaintiff environmental organization] to establish that an immediate and catastrophic threat to public health exists before a federal court can step in and order a defendant to stop its illegal discharges”) (citing *United States v. Hartsell*, 127 F.3d 343, 351 (4th Cir. 1997)).

47. It is “preferable to base the determination of irreparable harm on the statutes that actually form the basis of plaintiffs’ claims.” *Greater Yellowstone Coalition v. Flowers*, 321 F.3d 1250, 1257 (10th Cir. 2003). A violation of a CWA WQBEL causes irreparable harm regardless of whether there are also violations of an MCL or MCLG under the SDWA. A CWA citizen plaintiff need not also prove a violation of a SDWA MCL or MCLG to establish irreparable harm.

48. The SDWA was enacted to “prescribe minimum national standards concerning the purity of drinking water for the protection of the public health.” *Hudson River Fishermen’s Ass’n v. City of N.Y.*, 751 F. Supp. 1088, 1100 (S.D.N.Y. 1990), *aff’d*, 940 F.2d 649 (2d Cir. 1991). The objectives of the CWA and SDWA are not “mutually exclusive,” nor are they in conflict, but rather they are “complementary.” *Id.* “[T]he Safe Drinking Water Act cannot be interpreted to deprive plaintiff of its statutory right under the Clean Water Act.” *Id.* at 1099.

49. Nevertheless, to the extent it is complementary, evidence of Chemours’s exceedances of the MCLG for HFPO-DA is an additional form of irreparable harm in this case. Daily measurements of HFPO-DA in Lubeck’s finished drinking water have exceeded the MCLG of 10 ppt, with levels as high as 40 ppt. Although the MCL annual average is the risk management

measure for determining regulatory compliance, the MCLG is the proper health-based risk assessment measure for determining health risk on a day-to-day basis.

50. Another form of irreparable harm in this case is the environmental harm to the use of the Ohio River as a source of drinking water. Where discharges impact a river's capacity to serve as a domestic water source, irreparable environmental harm occurs. *See Nat. Res. Def. Council, Inc. v. Texaco Ref. & Mktg., Inc.*, 2 F.3d 493, 506 (3d Cir. 1993) (upholding injunction requiring compliance with NPDES permit because unlawful discharges "may impact a river's capacity to serve as a source of food, a sanctuary for wildlife and a fertile ground for recreation"). As Dr. Schlezinger testified, based on the levels of HFPO-DA Chemours is discharging, the Ohio River is "compromised" as a drinking water source. May 22 Tr. 211:16–24. The SDWA regulates treated domestic water. In contrast, the CWA protects the use of surface waters as drinking water *sources*. Accordingly, whether or not treatment systems may be currently reducing HFPO-DA levels in drinking water below public health thresholds is legally irrelevant. *Atlanta Gold Corp.*, 879 F. Supp. 2d at 1160.

51. Even if the environmental harms described above from Chemours's discharges of forever chemicals were not irreparable harm, in this case Plaintiff also establishes irreparable harm to Lubeck public water users, including Ms. Robinson.

52. Lubeck public water users, including Ms. Robinson, have been and are likely to continue to be exposed to treated domestic water with HFPO-DA concentrations above 10 ppt before trial because Chemours will continue violating its Permit limits for HFPO-DA until it completes installation of an upgraded treatment system, which Chemours expected to take 27 months at the time of the preliminary injunction hearing.

53. Exposure to such contaminated domestic water in the interim constitutes actual and

imminent irreparable harm. May 22 Tr. 202:1–19 (Schlezingner).

54. That harm cannot be quantified or calculated, May 22 Tr. 201:22–25 (Schlezingner), and no monetary value can be assigned to it, *id.* 201:24–25, rendering remedies at law inadequate.

55. Here, the irreparable harm is not limited to the Ohio River or the harm to Ms. Robinson and other Lubeck public water users. In environmental cases, both the Fourth Circuit and this Court assess irreparable harm to the plaintiff *or* the public in the context of injunctive relief, whether preliminary or permanent. *Hazardous Waste Treatment Council*, 945 F.2d at 788; *Courtland Co.*, 2024 WL 4339600, at *5–6.

56. That conclusion is consistent with the principle that where, as here, Congress has granted citizens a right of action and the plaintiff has established jurisdiction (i.e., standing), they may invoke the general public interest in support of their claim for injunctive relief. *Warth v. Seldin*, 422 U.S. 490, 501 (1975). Although injury to a litigant (or its members) is necessary to establish standing, “once review is properly invoked, that person may argue the public interest in support of his claim.” *Sierra Club v. Morton*, 405 U.S. 727, 737 (1972); *see also id.* at 740 n. 15 (“The test of [private] injury in fact goes only to the question of standing to obtain judicial review. Once this standing is established, the party may assert the interests of the general public in support of his claims for equitable relief.”). In a CWA citizen suit, plaintiffs may invoke “[t]he general public interest in clean waterways” to establish irreparable harm. *Powell Duffryn*, 913 F.2d at 73 (citing *Warth*, 422 U.S. at 501).

57. Thus, the scope of cognizable irreparable harm from Chemours’s discharges includes not only harm to the Ohio River and to Lubeck’s drinking water system, where Plaintiff’s member Ms. Robinson obtains her household water, but also harm to other public water systems downstream (such as those in Cincinnati and Louisville), and to the Ohio River itself. The evidence

shows that the increased HFPO-DA levels in the intake water in both the Cincinnati and Louisville water systems are correlated with increases of Chemours's discharges of that chemical from the Washington Works Plant, that HFPO-DA can migrate long distances in surface water to those cities, and that it is likely doing so. This harm will also continue until trial because, at the time of the preliminary injunction hearing, Chemours admitted it will not stop violating its HFPO-DA Permit limits for at least 27 months.

58. Chemours incorrectly maintains (or at least implies) that, unless Plaintiff can establish a violation of the as-yet unenforceable MCL—HFPO-DA concentrations of greater than 10 ppt on an annual basis in treated drinking water—Plaintiff cannot establish irreparable harm.

59. That is wrong for the reasons discussed above.

60. But, in all events, here Plaintiff can establish that the Lubeck system, more likely than not, distributed water in violation of what will be the MCL for HFPO-DA because of Chemours's illegal HFPO-DA discharges.

61. A system is immediately out of compliance with the MCL when a single analytical result is high enough to render it mathematically impossible for the annual average to meet the MCL of 10 ppt regardless of subsequent quarterly monitoring results. 40 C.F.R. § 141.903(e). On May 20, 2024, the HFPO-DA concentration in Lubeck water after treatment was 40 ppt. Joint Stip. ¶ 14. Under the applicable regulation, that measurement results in a violation of the MCL. But even if that single analytical result of 40 ppt were not enough to constitute a violation of the MCL, the existence of detectable concentrations of HFPO-DA in two of the three immediately prior quarters, and two of the three immediately subsequent quarters, makes it more likely than not that the running annual average of HFPO-DA has exceeded 10 ppt. May 22 Tr. 212:14–214:18 (Schlezinger).

62. Any way you slice it, Plaintiff has established that irreparable harm will occur in the absence of a preliminary injunction.

63. “[H]arm to the environment has been classified as irreparable. That harm did not become reparable (or less immediate) because of Plaintiffs’ delay in filing for a preliminary injunction, whatever the reason.” *PennEnvironment v. PPG Indus., Inc.*, No. 12-cv-342, 2014 WL 6982461, at *15 (W.D. Pa. Dec. 10, 2014) (internal quotation marks omitted). “[D]elay may be excused where the party seeking a preliminary injunction delays only in the reasonable belief that negotiations may resolve the dispute.” *Lanin v. Borough of Tenaflly*, 515 F. App’x 114, 118 (3d Cir. 2013) (unpublished opinion). Plaintiff acted reasonably in waiting to pursue injunctive relief until the circumstances established that (1) Chemours’s negotiations in 2023 through 2024 with federal and state enforcers would not diligently put an end to Chemours’s unlawful discharges, (2) Chemours told WVDEP in December 2024 that it wanted a three-year compliance schedule, and (3) Cincinnati and Louisville officials informed Plaintiff in January 2025 that recent spikes in HFPO-DA discharges from Chemours’s facility were showing up in the domestic water source for millions of people hundreds of miles downstream. *See* ECF No. 18 at 13.

Factor Three: Balance of Harms

64. “Environmental injury, by its nature, can seldom be adequately remedied by money damages and is often permanent or at least of long duration, i.e., irreparable.” *Sierra Club v. U.S. Army Corps of Eng’rs*, 981 F.3d 251, 264 (4th Cir. 2020) (quoting *Amoco Prod.*, 480 U.S. at 545). HFPO-DA contamination is the quintessential example of harm “of long duration, i.e. irreparable,” since it lasts “forever.”

65. Protecting water uses “is the overriding purpose of West Virginia’s water quality standards and the goal of the state’s permit requirements.” *Elk Run Coal*, 24 F. Supp. 3d at 579.

All NPDES permits must require compliance with water quality standards. 40 C.F.R. § 122.44(d)(1). When it issued Chemours’s NPDES Permit, WVDEP determined that the HFPO-DA limits were necessary to comply with a narrative water quality standard that protects designated uses in the Ohio River, which include safe drinking water. ECF No. 65-2 at 14–15; Joint Stip. ¶¶ 4–5.

66. Water quality–based effluent limitations must be “set without regard to cost or technology availability.” *City & County of S.F.*, 145 S. Ct. at 712 (internal quotation marks omitted). When it enacted the CWA, Congress made the clear choice in favor of protecting the environment even where industry’s “capacity to comply may be stretched to the limit.” S. Rep. No. 92-414, at 44 (1971), *as reprinted in* 1972 U.S.C.C.A.N. 3668, 3711. Congress anticipated that compliance “would cause economic hardship and plant closings.” *Student Pub. Int. Rsch. Grp. of N.J., Inc. v. Fritzsche, Dodge & Olcott, Inc.*, 579 F. Supp. 1528, 1537 (D.N.J. 1984), *aff’d*, 759 F.2d 1131 (3d Cir. 1985). As a result, “[h]arm to environment outweighs a defendant’s financial interests, particularly where violations are of a longstanding and continual nature.” *Atlanta Gold Corp.*, 879 F. Supp. 2d at 1161–62.

67. Chemours’s harm from having to reduce production is not a cognizable harm under the CWA. Its permit expressly excludes that defense. ECF No. 65-1 at 96 (Appx. A, Part II.2); *see United States v. Smithfield Foods, Inc.*, 972 F. Supp. 338, 350 (E.D. Va. 1997) (“Defendants could have curtailed production to achieve compliance with the effluent limits in the interim, as they had done prior to 1991.”); *Env’t Tex. Citizen Lobby, Inc. v. ExxonMobil Corp.*, 824 F.3d 507, 526 (5th Cir. 2016) (“[I]f a regulated entity is incapable of operating in compliance with its permits, the ‘one simple and straightforward way . . . to avoid paying civil penalties’ is to ‘cease[] operations until it [is] able to’ do so.”) (quoting *Atl. States Legal Found., Inc. v. Tyson Foods, Inc.*, 897 F.2d

1128, 1141–42 (11th Cir. 1990)). A violator’s failure to close its plant or slow its production “in the face of undisputed knowledge that continued operation would result in continued violations, reflects a certain degree of willfulness” with respect to its NPDES permit noncompliance. *Chesapeake Bay Found. v. Gwaltney of Smithfield, Ltd.*, 611 F. Supp. 1542, 1561 (E.D. Va. 1985), *aff’d*, 791 F.2d 304 (4th Cir. 1986), *vacated on other grounds sub nom, Gwaltney of Smithfield, Ltd. v. Chesapeake Bay Found., Inc.*, 484 U.S. 49 (1987).

68. In any event, “[m]ere injuries, however substantial, in terms of money,” are rarely cognizable in the equitable balance. *See Roe v. Dep’t of Def.*, 947 F.3d 207, 228 (4th Cir. 2020) (cleaned up); *see also Atlanta Gold Corp.*, 879 F. Supp. 2d at 1161–62. In balancing the equities, financial harms are less important because “[m]oney can be earned, lost, and earned again.” *OVEC v. U.S. Army Corps of Eng’rs*, 528 F. Supp. 2d 625, 632 (S.D. W. Va. 2007).

69. Chemours did not take the necessary steps to ensure compliance between the 2018 issuance of its Permit and the HFPO-DA limits compliance deadline of January 1, 2022. Indeed, instead of reducing production to come into compliance with its Permit obligations or investing capital in the necessary treatment systems to achieve compliance with those obligations, Chemours invested in a new PFA line in 2024 to increase production, causing additional HFPO-DA discharges into the Ohio River. May 21 Tr. 116:21–23, 121:12–16 (Hollingsworth). Chemours has gotten itself into this position, and “[i]t would seem elementary that a party may not claim equity in his own defaults.” *Long v. Robinson*, 432 F.2d 977, 981 (4th Cir. 1970).

70. The balance of harms thus favors Plaintiff and the public. The harm to Plaintiff and the public consists of harm to water quality standards that are designed to protect drinking water and designated uses of the Ohio River. The harm to Chemours consists of increased compliance costs and reduced production.

Factor Four: Public Interest

71. District courts must “pay *particular regard*” to the public interest requirement in deciding whether to issue a preliminary injunction. *Real Truth About Obama*, 575 F.3d at 347 (emphasis in original).

72. Here, issuance of a preliminary injunction is in the public interest. Protecting water quality is “a critical public interest that profoundly outweighs a company’s bottom line.” *Fola Coal*, 2016 WL 3190255, at *11 (citing *Atlanta Gold Corp.*, 879 F. Supp. 2d at 1162).

73. Human exposure to drinking water containing HFPO-DA has serious human health consequences that affect downstream water systems along the Ohio River that serve millions of people. The “forever” nature of HFPO-DA means that Chemours’s Permit violations could have long-term consequences.

74. Congress has already weighed the public interest in jobs and domestic manufacturing against the public interest in clean water and found that the former yields to the latter—“Congress foresaw and accepted the economic hardship, including the closing of some plants, that effluent limitations [under the CWA] would cause.” *EPA v. Nat’l Crushed Stone Ass’n*, 449 U.S. 64, 79 (1980).

75. Moreover, the West Virginia Legislature has found that “[i]t is in the public interest for West Virginia to reduce toxic chemicals in drinking water *supplies* to protect the health of West Virginians and strengthen the state’s economy.” W. Va. Code § 22-11C-1(a)(12) (emphasis added). The Ohio River is a drinking water supply—both directly (i.e., Cincinnati and Louisville) and indirectly (i.e., Lubeck)—for millions of people, including many West Virginians. *See* ECF No. 7-11 at 25. Thus, according to the West Virginia Legislature, enjoining Chemours’s illegal discharge of toxic HFPO-DA into the Ohio River is in the public interest because it will protect

the health of West Virginians and strengthen the State's economy. "[W]hen the legislature has spoken, the public interest has been declared in terms well-nigh conclusive." *Berman v. Parker*, 348 U.S. 26, 32 (1954); *see also Pavek v. Donald J. Trump for President, Inc.*, 967 F.3d 905, 909 (8th Cir. 2020) ("It is in the public interest to uphold the will of the people, as expressed by acts of the state legislature, when such acts appear harmonious with the Constitution."); *Med. Soc'y of N.J. v. Mottola*, 320 F. Supp. 2d 254, 273 (D.N.J. 2004) ("Federal courts must give deference to laws passed by the state legislature."); *see also Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 196 (1978) (Powell, dissenting) ("It is not our province to rectify policy or political judgments by the Legislative Branch, however egregiously they may disserve the public interest.").

76. Chemours contends that an injunction forcing it to stop production is not in the public interest because it would have serious economic effects, including loss of jobs and shortages of critical products used in the computer and defense industries. But Chemours offers only speculation about the effects of a shutdown. Chemours currently shuts down its fluoropolymer production units for "turnarounds" or "TARs" every three years for 50 to 55 days with no job loss. May 21 Tr. 85:15–86:20 (Hollingsworth). Shutting down PFA Line 2, which began in 2024, would only affect the 25 to 30 people who work there. *Id.* 116:24–117:1, 136:9–11 (Hollingsworth). Not all of Chemours's PFA, FEP, or PTFE goes to critical products or to U.S. businesses. Hollingsworth Decl., ECF No. 17-1 ¶¶ 49, 63, 70; May 21 Tr. 140:10–14 (Hollingsworth). Chemours also produces PFA, FEP, and PTFE at its plants in Japan, China, and the Netherlands. May 21 Tr. 141:5–25, 143:13–144:1 (Hollingsworth). Competitors of Chemours also produce PFA, FEP, and PTFE elsewhere. May 22 Tr. 43:10–15, 58:24–59:17 (Walck); May 21 Tr. 142:1–18 (Hollingsworth); Hollingsworth Decl., ECF No. 17-1 ¶¶ 53, 71. Chemours has not analyzed specifically how a reduction in its production would affect product availability. May 21 Tr.

142:23–143:4, 143:15–144:23 (Hollingsworth); May 22 Tr. 58:8–23 (Walck). Chemours raised no national security or economic concerns when it sought the Permit, May 21 Tr. 13:6–15, and presented no credible testimony (or at best only speculative testimony) that a temporary reduction of production at the Washington Works Plant could not be made up by production at other facilities.

77. In any event, Chemours’s public interest arguments based on claimed economic losses are irrelevant because its Permit clearly bars consideration of its costs of reduced production. ECF No. 65-1 at 96 (Appx. A, Part II.2). If it is no defense that Chemours would have to reduce production to achieve compliance, it is also no defense that Chemours would have to incur costs and cut output to achieve compliance. Reducing production necessarily involves incurring costs and cutting output. By categorically refusing to do so, Chemours is either violating this Permit condition or collaterally attacking it. Collateral attacks on an NPDES permit in an enforcement action are prohibited. *Puget Soundkeeper All. v. Port of Tacoma*, 104 F.4th 95, 105 (9th Cir. 2024), *cert. denied*, No. 24-350, 2025 WL 1787738 (June 30, 2025). By failing to prosecute a challenge to its 2018 Permit in state administrative or judicial proceedings, Chemours lost “forever its right to do so.” *Id.* at 106.

78. Weighing the competing public interest arguments (water quality, protection of drinking water sources, and protection of human health on one side, and the importance of fluoropolymers to modern life on the other), the Court determines that it is in the public interest to preliminarily enjoin Chemours’s unlawful discharges of HFPO-DA from Outlets 002 and 005.

Remedy

79. The CWA authorizes this Court to “enforce . . . an effluent standard or limitation . . . and to apply any appropriate civil penalties under § 1319(d).” 33 U.S.C. § 1365(a). An effluent

standard or limitation includes a “permit or condition thereof” under the CWA. *Id.* § 1365(f)(6). The NPDES permitting program is the “centerpiece of the CWA.” *Am. Iron & Steel Inst. v. EPA*, 115 F.3d 979, 990 (D.C. Cir. 1997). The Supreme Court has stated that the CWA “permits the district court to order that relief it considers necessary to secure prompt compliance with the Act. That relief can include, but is not limited to, an order of immediate cessation.” *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 320 (1982). An injunction requiring a defendant to comply with its existing NPDES permit is permissible and not “lacking in specificity.” *Powell Duffryn*, 913 F.2d at 83.

80. In fashioning an injunction, the Court “need not, and should not, make a factual determination as to what type of treatment system is most likely to prove effective.” *Atlanta Gold*, 879 F.2d at 1164. The Court may order the defendant to “undertake whatever action is necessary to achieve full compliance . . . as expeditiously as possible.” *Mumford Cove Ass’n v. Town of Groton*, 640 F. Supp. 392, 397 (D. Conn. 1986). The Court need not defer to the terms of an EPA administrative consent order that contemplates a multi-year compliance schedule to construct an upgraded treatment plant, and can instead require immediate compliance and interim measures to reduce violations. *Rice*, 774 F. Supp. at 325–29.

81. Chemours admits that WVDEP and/or EPA have the ability in an enforcement action to shut down the Washington Works Plant for its CWA Permit violations. *See, e.g.*, May 21 Tr. at 25:21–25.

82. The CWA “citizen suit provision is stepping in the place of EPA’s enforcement mechanism.” May 21 Tr. at 26:5–7. This lawsuit is a CWA enforcement action. *See* May 21 Tr. 149:23–150:1 (Hollingsworth).

83. EPA’s NPDES regulations and Chemours’s Permit provide that it shall not be a

defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the Permit.

84. Reducing production at the Washington Works Plant would reduce the amount of HFPO-DA Chemours discharges from Outlets 002 and 005 into the Ohio River. May 21 Tr. 130:5–8 (Hollingsworth). Additionally, Chemours could take other pollution reduction measures, such as implementing a pollutant minimization program, housekeeping measures (including increasing the frequency of sweeping for or otherwise cleaning areas that accumulate HFPO-DA), and taking additional process wastewater offsite for disposal. *Id.* 127:18–132:25 (Hollingsworth). The Washington Works Plant already takes several tanker truck loads of process wastewater off-site for disposal by incineration every week. *Id.* 131:11–22 (Hollingsworth).

85. Ceasing production would reduce or eliminate Chemours’s Permit violations at Outlets 002 and 005 for HFPO-DA. ECF No. 66-1 (Chemours document showing no violations at Outlet 005 during 50- to 55-day shutdown in 2023 and at most two violations at Outlet 002 during same shutdown); May 21 Tr. 110:15–116:7 (Hollingsworth).

86. EPA advised Chemours that it can take additional interim measures to come into compliance with its HFPO-DA Permit limits. ECF No. 65-14 at 5 (“For more immediate compliance with the 2018 NPDES Permit, the EPA would advise Chemours to implement interim additional treatment and BMPs on process, storm, and source water in high pollutant loading areas to significantly reduce discharges during the period of AA&IP implementation.”). Mr. Hollingsworth confirmed that such additional measures could be taken. May 21 Tr. 127:18–132:25.

87. The Court determines that a preliminary injunction requiring Chemours to comply with the Permit’s HFPO-DA limits at Outlets 002 and 005 is appropriate, and hereby so ORDERS.

Based on the record before the Court, Chemours is ORDERED to reduce production at the Washington Works Plant to achieve compliance with the Permit's HFPO-DA limits to the safest level and in the safest timeframe possible. If such timeframe would exceed 14 days, Chemours is ORDERED to establish the safest timeframe possible to the Court. If reducing production does not result in compliance with the Permit's HFPO-DA limits by the first sampling event following the production turndown, then Chemours shall take all other steps necessary to immediately achieve compliance. If such additional measures do not result in compliance with the Permit's HFPO-DA limits by the next sampling event, then Chemours shall cease production at the Washington Works Plant until such a time as compliance is achieved. This injunction shall remain effective until such time the Court issues further order(s) following trial on this matter in September 2025.

Bond

88. In granting an injunction, the Court must fix a security "in such sum as the court deems proper." Fed. R. Civ. P. 65(c). A district court has discretion in setting the security amount, and can even waive it, but it is not free to "disregard the bond requirement altogether." *Pashby v. Delia*, 709 F.3d 307, 332 (4th Cir. 2013) (quoting *Hoechst Diafoil Co. v. Nan Ya Plastics Corp.*, 174 F.3d 411, 421 (4th Cir. 1999)). Placing a hurdle in the form of a more-than-nominal bond to equitable relief in such cases would be contrary to the public interest. *See Moltan Co. v. Eagle-Picher Indus., Inc.*, 55 F.3d 1171, 1176 (6th Cir. 1995), *cited in Pashby*, 709 F.3d at 332.

89. "A bond is not mandatory and can be waived." *Hernandez v. Montes*, No. 5:18-CV-5-D, 2018 WL 405977, at *2 (E.D.N.C. Jan. 12, 2018); *see also Poindexter v. Strach*, 324 F. Supp. 3d 625, 636 (E.D.N.C. 2018) (waiving bond requirement when plaintiff's request for no bond was unopposed). Chemours waived the issue of a security by failing to raise or discuss the issue at any point in its opposition to Plaintiff's preliminary injunction motion. *See, e.g.*, ECF

No. 17. Therefore, no bond is required in this case. The Court, nonetheless, requires Plaintiff to post a nominal security in this case in the amount of \$100 by depositing with the Clerk a certified or cashier's check in that amount within three business days of the entry of this Order. The Clerk is DIRECTED to deposit the funds from Plaintiff's certified or cashier's check pursuant to Federal Rule of Civil Procedure 67 and 28 U.S.C. § 2041.

IT IS SO ORDERED.

DATE: _____

The Honorable Joseph R. Goodwin
United States District Court Judge